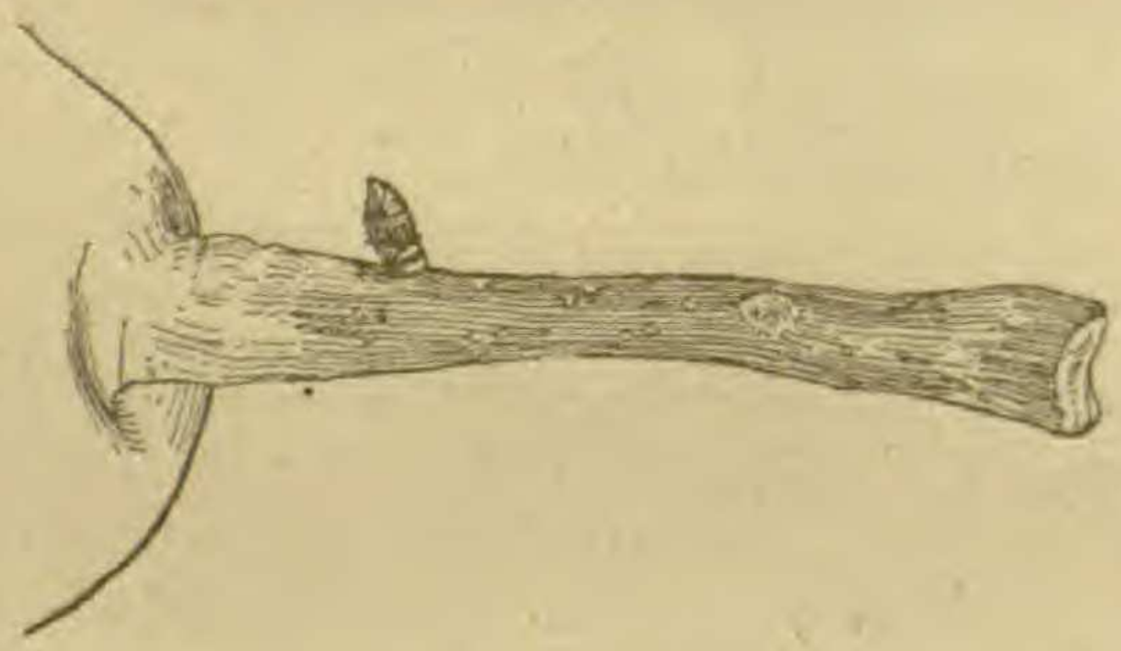
because the water is so well shaded from the sun. Upon July 20, there was a copious rain that filled all the cups, and it was five days before any marked diminution of the water was noticed. At the end of fourteen days many of the lower cups still contained water. The cups were found to contain from 300 to 600 cc. An average plant would hold about a liter, and a large plant as much as a liter and a half.

It seems more probable that the object of the cups with their water is to protect the plant from crawling insects, which it does most effectually. The blossoms are frequented by bees and other flying insects, but upon the plants are found no ants or other crawling animals. The hooked prickles so thickly set along the stems, and especially on the stem just beneath the blossoms, are a perfect barrier against snails, slugs and such soft-bodied animals, while the water keeps away the hard-bodied insects. The flowers are not well arranged for cross-fertilization by ants, as the anthers and stigmas are raised so far above the throat of the corolla that ants would not reach them easily and naturally.

It is doubtless to the advantage of the plant that such insects be kept away, as they would take the nectar and yield nothing in return.

It is perhaps worthy of notice that no bridge is thrown across this moat until the falling flowers cover the surface, and then it is too late for them to be injured by marauding ants.—W. J. Beal and C. E. St. John.



Bud on a pear stem.—The Howell pear often presents a curious anomaly in bearing a well-developed bud upon its fruit stem. The accompanying cut shows such a bud borne a half inch below the base of the fruit. This singular disposition is additional proof, if any were needed, that the fruit stalk is essentially a true stem, bearing a transformed cluster of leaves.—L. H. Bailey, Jr., *Agricultural College, Mich.*

Cultivation of saccharomycetes.—Some fermentation experiments with which I was engaged during the past summer required the application of pure yeast, free from other organisms capable of producing fermentation. The methods of separation and cultivation employed were very successful, and may suggest something of value here.

A few drops of fresh beer-yeast were shaken in a test tube with sterilized gelatine, which had been melted and cooled again until it was barely fluid. This, flowed upon sterilized plates, gave in twenty-four hours, at ordinary room temperature, a great number of colonies of schizomycetes and saccharomycetes, from which, with the aid of an ordi-